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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/772,972	02/05/2004	Harry S. Edelman	169.12-0619	5211
164	7590	07/31/2007	EXAMINER	
KINNEY & LANGE, P.A. THE KINNEY & LANGE BUILDING 312 SOUTH THIRD STREET MINNEAPOLIS, MN 55415-1002			EVANS, JEFFERSON A	
		ART UNIT	PAPER NUMBER	
		2627		
		MAIL DATE	DELIVERY MODE	
		07/31/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/772,972	EDELMAN ET AL.
Examiner	Art Unit	
Jefferson Evans	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 19 April 2007.
- 2a) This action is FINAL.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1,2,4-12 and 14-27 is/are pending in the application.
- 4a) Of the above claim(s) 7,8,20 and 24-27 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1, 2, 4-6, 9-12, 14, 17-19, and 21-23 is/are rejected.
- 7) Claim(s) 15 and 16 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_

Claims 1, 2, 4-12, and 14-27 are pending.

Claims 7, 8, 20, and 24-27 have been withdrawn from consideration.

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 9, and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Zhu (U.S. 6,870,706). Zhu discloses a transducing head (figure 1) including a reader (2) and a writer (4) with insulating material (12) therebetween. Zhu discloses that the writer is electrically connected to a substrate in the form of a slider (note column 7 – lines 23 and 24, and lines 38 to 41) to be grounded. The substrate is conductive (column 8 – line 6). The writer being connected to ground will mean that the functional language set forth in claim 10 will be met.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4-6, 11, 12, 14, 17-19, and 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhu. Zhu discloses providing a resistor between the reader and the substrate (column 8 – lines 56 to 63) but does not expressly disclose that a resistor is between the writer and the substrate.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have a resistor between the writer and substrate of Zhu. The motivation would have been: advantages of having such a resistor between the reader and substrate, such as enabling control of the current along the conductive path between the reader and the substrate, would also have been wholly applicable and advantageous when applied between the writer and the substrate.

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zhu in view of Hirano et al (U.S. 6,853,517) and/or Hanchi et al (U.S. 6,967,805). Zhu does not appear to expressly disclose that his disk is grounded.

Both Hirano (column 1 – lines 55 to 60) and Hanchi (column 3 – lines 10 and 11) teach that both slider and disk should be grounded.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have both the disk and slider of Zhu grounded. The motivation would have been: to do so was common in the art to keep the disk and slider at the same potential and thereby reduce the chance of electrostatic discharge damaging the head and/or the disk.

***Allowable Subject Matter***

6. Claims 15 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Response to Arguments filed 4-19-2007

A...On page 9 – 3<sup>rd</sup> paragraph, applicant contends that Zhu fails to disclose or teach that the reader and a writer core are electrically isolated from one another and are electrically linked through the overcoat 21.

In response, it is noted that the claim 1 – lines 5 to 7, read “an electrically insulating material, wherein the reader and the writer core are electrically isolated from one another by the electrically insulating material”. The Examiner’s position is that Zhu meets that language because insulating material 12 does act to separate and electrically isolate the reader and writer. The fact that there is another element, i.e., overcoat 12, that allows some electrical charge to move there through and is connected to the writer and the reader does not negate the fact that the insulating material of Zhu for itself meets the claimed structure and function as it concerns the claimed “electrically insulating material”. Further, it can be argued that the overcoat being connected to ground establishes electrical isolation between the reader and writer elements in that electrical charges from the reader and writer will not move into each other but rather will move towards ground.

B...On page 11 – 2<sup>nd</sup> full paragraph, applicant states that Zhu only discloses resistors having a resistance of 10 kilo Ohms or more which is a range that only

encompasses large resistances, and on page 12 mentions that claims 5, 12, and 18 each specify a range of possible resistances for a resistor that encompasses much smaller resistances than those disclosed by Zhu.

In response it is noted that 10 kilo Ohms falls within the claimed range of 1 ohm to 1 mega Ohm as set forth in claim 5, 12, and 18. Zhu does not have to disclose all the values within a claimed range to be properly applied against the claim, but rather just must disclose at least one value within the claimed range.

**8. THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

**9.** Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jefferson Evans whose telephone number is 571-272-7574. The examiner can normally be reached on Increased Flextime.

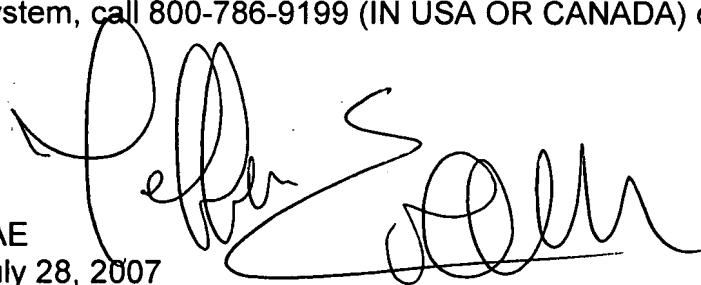
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Thi Nguyen can be reached on 571-272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

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USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JAE  
July 28, 2007

A handwritten signature in black ink, appearing to read "Jefferson Evans". The signature is fluid and cursive, with a large, stylized 'J' at the beginning.

Jefferson Evans  
Primary Examiner  
Art Unit 2627

**JEFFERSON EVANS**  
**PRIMARY EXAMINER**